

1.0 PURPOSE OF THIS PLAN

This document is the Secretary of Energy's plan for U.S. Department of Energy (DOE) Headquarters, Operations Offices, laboratories, and contractor organizations regarding specific steps they should take to meet DOE's pollution prevention commitments. It is the third in a series of pollution prevention documents issued by the Office of the Secretary over the past 4 years. This plan builds upon the Waste Minimization Crosscut Plan (DOE/S-0094P), issued in 1992, and the Waste Minimization/Pollution Prevention Crosscut Plan (DOE/FM-0145), issued in 1994. This plan:

- discusses goals and goal-setting criteria to reduce waste generation, reduce the use and release of toxic chemicals, and increase recycling and affirmative procurement of recycled products;
- identifies priorities in accomplishing the Department's implementation strategy; and
- describes, via an Activity Plan, the steps necessary to establish a comprehensive pollution prevention program.

The Department's focus to date has primarily been on source reduction and recycling of sanitary wastes to reduce the amount of waste requiring treatment, storage, and disposal. This plan expands the scope to include other waste types; releases of pollutants to air, soil, and water; energy efficiency; and resource conservation.

The Department's goal is to maintain a consistent and comprehensive program throughout the complex to take full advantage of the benefits of pollution prevention. This plan presents DOE's pollution prevention policy, strategy, and direction. It also serves as the primary mechanism for priori-

tizing pollution prevention activities and accelerating implementation. The plan will be updated as necessary to reflect the latest pollution prevention goals, directives, strategies, and progress. The Department's definition of pollution prevention is found in Appendix A.

1.1 Mandates

While there are many Federal requirements for implementing pollution prevention within the Department (several of which will be discussed later in this section), it is important to recognize that the primary reason for pollution prevention is good business practice. Each Federal and contractor employee within the Department is expected to make the best use of resources to achieve the most favorable outcome in any given activity. Pollution prevention can help employees do just that because it promotes efficiency, saves money, and creates a sense of shared responsibility at each site. When pollution prevention becomes the ethic of every employee at a site, meeting the requirements discussed in the following paragraphs need not be difficult.

DOE Order 5400.1, "General Environmental Protection Program," requires Heads of Field Organizations to prepare plans for their pollution prevention awareness program activities. Such plans shall be reviewed annually and updated every 3 years. Plans were last submitted to Headquarters in 1994.

The United States Congress, through the enactment of the Pollution Prevention Act of 1990, has established pollution prevention as the preferred approach to managing environmental releases. The act establishes source reduction as the national strategy of first choice to reduce the generation of pollution.

To emphasize the importance of pollution prevention, President Clinton issued Executive Order 12856, "Federal Compliance With Right-to-Know Laws and Pollution Prevention Requirements," on August 3, 1993. The Executive Order encourages pollution prevention leadership within the Federal government. It directs that all Federal agencies develop goals to reduce by 50 percent their total releases to the environment and off-site transfers for treatment and disposal of toxic chemicals regulated under the Emergency Planning and Community Right-to-Know Act (EPCRA), section 313, by December 31, 1999. In addition, each Federal agency must review its specifications and standards and identify opportunities to eliminate or reduce the use of toxic chemicals. Further, each agency, and each facility within that agency required to comply with EPCRA Section 313, must have a plan with goals to eliminate or reduce the unnecessary acquisition of products containing toxic chemicals.

Executive Order 12969, "Federal Acquisition and Community Right-to-Know," signed by the President on August 8, 1995, states that "Federal agencies, to the greatest extent practicable, shall contract with companies that report in a public manner on toxic chemicals released to the environment." This statement applies to Federal contracts that are expected to equal or exceed \$100,000. The Order also states that Federal agencies may amend existing contracts, to the extent permitted by law and where practicable, to require reporting.

Executive Order 12873, "Federal Acquisition, Recycling, and Waste Prevention" (October 1993), directs the appointment of Federal agency environmental executives to develop and implement acquisition programs aimed at encouraging new technologies and building markets for environmentally preferable and recycled products. Federal

agencies also must set goals for waste reduction, recycling, and the acquisition of recycled products, and report on their progress in meeting the goals.

In addition, this Executive Order requires that Federal agencies purchase 100 percent of those recycled items designated by the Environmental Protection Agency (EPA), except where the items are not available competitively at a reasonable price within a reasonable time frame, or if they do not meet appropriate performance standards. Purchasing non-recycled versions of the EPA-designated items will require written justification citing one or more of the above conditions.

Executive Order 12902, "Energy Efficiency and Water Conservation at Federal Facilities" (March 1994), directs Federal agencies to develop and implement programs, to the extent they are cost effective, aimed at: 1) reducing overall energy use in Federal buildings 30 percent by 2005; 2) increasing overall energy efficiency in industrial Federal facilities 20 percent by 2005; 3) significantly increasing the use of solar and other renewable energy sources; and 4) minimizing the use of petroleum products at Federal facilities by switching to less polluting energy sources.

As required by Executive Order 12856, the Secretary of Energy, on December 28, 1994, issued DOE's *Pollution Prevention Strategy*, to be implemented by all Departmental elements (Appendix B). This document establishes pollution prevention as DOE's primary strategy to reduce the generation of all waste streams and thereby minimize the impact of Departmental operations on the environment, reduce operational costs, and improve energy efficiency and safety.

1.2 Pollution Prevention Goals

The Secretary of Energy has committed the Department to the following pollution prevention goals, to be achieved complex-wide by December 31, 1999, using calendar year (CY) 1993 as a baseline:

- Reduce total releases and offsite transfers for treatment and disposal of EPCRA 313 toxic chemicals from routine operations 50 percent.
- Reduce the generation of radioactive waste from routine operations 50 percent.
- Reduce the generation of low-level mixed waste from routine operations 50 percent.
- Reduce the generation of hazardous waste from routine operations 50 percent.
- Reduce the generation of sanitary waste (after recycling) from routine operations 33 percent.

- Divert for recycling 33 percent of sanitary waste from all operations.

- Increase the affirmative procurement of EPA-designated recycled products to 100 percent.

By setting these goals, the Department joins other agency leaders in pollution prevention, as shown in Table 1.1. Progress toward achieving the goals will be reported annually to the Secretary in the Annual Report on Waste Generation and Waste Minimization Progress. These goals are discussed in greater detail in Section 3.2.2.

Individual sites are encouraged to develop their own goals that meet or exceed the above complex-wide goals, against which DOE must report. Effective goal-setting and follow-through is the cornerstone of management commitment. It is the responsibility of Headquarters Cognizant Secretarial Offices (CSOs), Operations Office managers,

Table 1.1 Comparison of DOE and Other Agency Waste Reduction and Recycling Goals by Calendar Year

Goal	Department of Energy		Department of Defense (All Service Branches)		U.S. Postal Service	
	Baseline Year	By End of 1999	Baseline Year	By End of 1999	Baseline Year	By End of 1999
Toxic Chemical Release Inventory Reduction	1993	50% ⁽¹⁾	1994	50%	1994	50% (1995)
Hazardous Reduction	1993	50% ⁽¹⁾	1992	50%	1992	50% (1995)
Radioactive Reduction	1993	50% ⁽¹⁾	NA ⁽³⁾	NA	NA	NA
Low-Level Mixed Waste Reduction	1993	50% ⁽¹⁾	NA	NA	NA	NA
Sanitary Waste Reduction	1993	33% ⁽¹⁾	1992	50%	1992	95%
Recycling	NA ⁽²⁾	33%	NA ⁽²⁾	50%	NA ⁽²⁾	70%

(1) Environmental cleanup/stabilization wastes excluded; routine wastes

(2) Recycling baselines are established annually.

(3) Low-level wastes only.

and heads of contractor organizations to ensure that appropriate goals are set and met.

1.3 DOE Pollution Prevention Priorities

This plan establishes six immediate Department-wide priorities, to be implemented by fiscal year (FY) 1998, that will help Headquarters, the Operations Offices, and the sites to focus resources on the most critical aspects of DOE's pollution prevention program. Longer term priorities are discussed in Section 3.3.

The six priorities are to:

- Establish senior management commitment to pollution prevention implementation.
- Set quantitative, site-specific waste reduction and recycling goals.
- Institute performance measures.
- Implement cost-saving pollution prevention projects.
- Design pollution prevention into new products, processes, and facilities.
- Ensure that site programs comply with Federal, State, and Departmental requirements.
- preventing pollution and conserving energy and other resources;
- incorporating pollution prevention into planning, operations, and design activities;
- reducing the cost of program operations and environmental compliance through source reduction and recycling;
- developing and using innovative technologies to prevent pollution and minimize releases from all DOE activities;
- encouraging pollution prevention through policies, procedures, and incentives;
- participating in the formulation of sound and effective environmental laws and regulations; and
- proactively involving stakeholders and the public in the planning and implementation of pollution prevention activities.

Each of the six immediate priorities is described in more detail in Section 3.2.

1.4 Vision of the Future – Year 2000

DOE has a sustained, integrated commitment to pollution prevention at all levels. Acknowledged by its stakeholders as a responsible pollution prevention role model, the Department is recognized as a leader in:

1.5 External Pollution Prevention Programs

This plan focuses on pollution prevention within DOE facilities and operations. However, many organizations within DOE provide critical support to industry, academia, and other Federal agencies to promote pollution prevention.

Work with external partners is beneficial to DOE's internal pollution prevention programs. Technologies developed with industry and other Federal agencies are applied to DOE operations and facilities. External partnerships also promote information exchange within and outside of the Department.

The Office of Energy Efficiency and Renewable Energy (EE) has the lead responsibility in helping industry become more competitive by cost-effectively

shifting from waste management to pollution prevention and resource efficiency. Industrial pollution prevention is important to DOE because of the connection between energy use and waste generation. DOE's laboratories and facilities have expertise in areas that are critical to promoting industrial pollution prevention. DOE's core competencies include energy and environmental technologies, advanced materials development, high-performance computing and communications, and advanced manufacturing. For more information on the Department's external pollution prevention programs, contact the EE Office of Industrial Technologies' Technology Access Group at 202-586-0139. Information is also available on the Internet at <http://www.even.doe.gov/industry>.

